

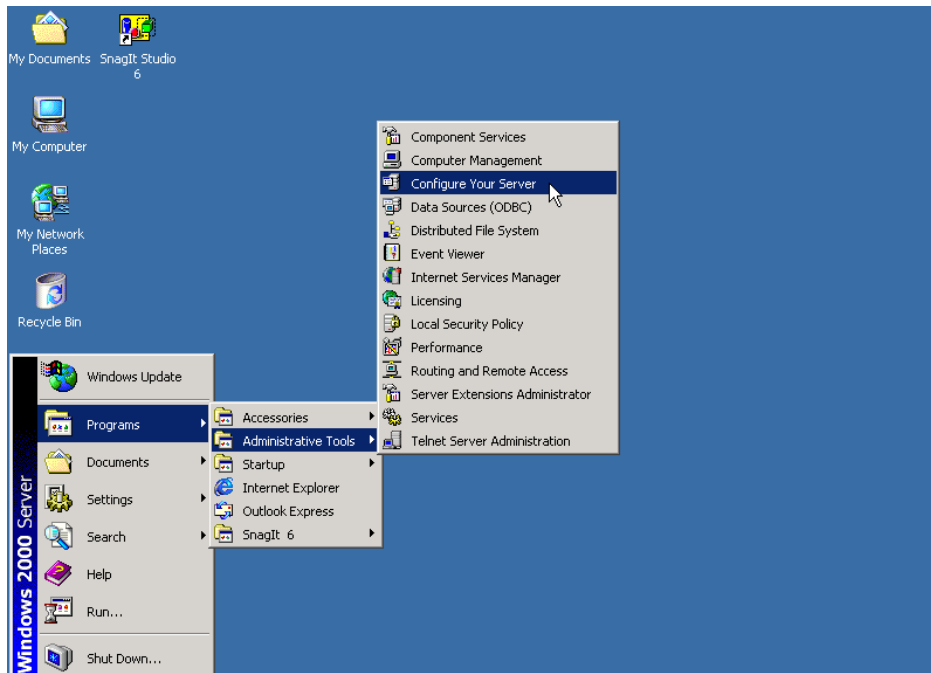
DHCP Configuration & Setup

Windows 2000 Server

Version 2.0

10-28-2002

1. From the Desktop click **Start – Programs – Administrative Tools – Configure Your Server**.



2. Click on **Networking – DHCP** and then click **Start** the Windows Components Wizard.

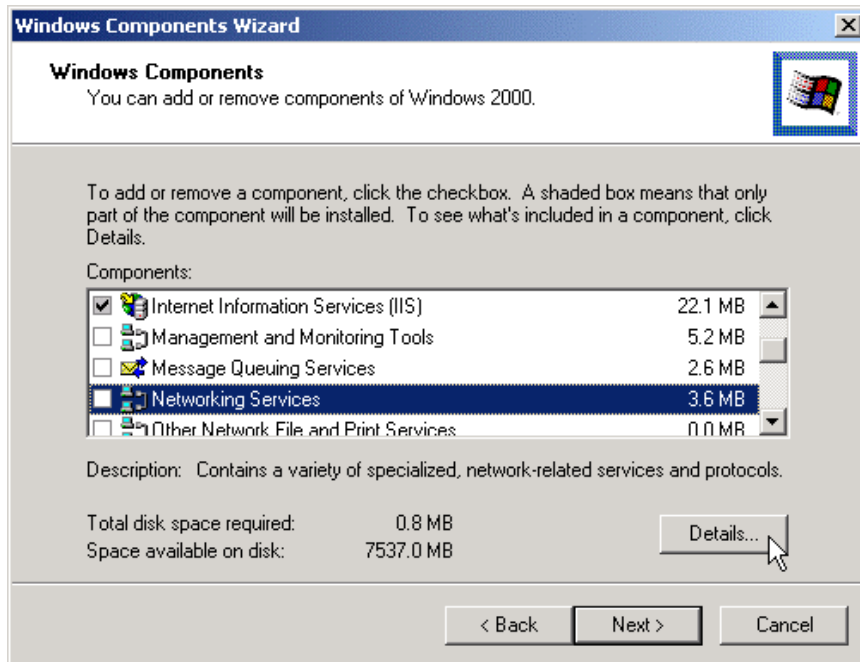


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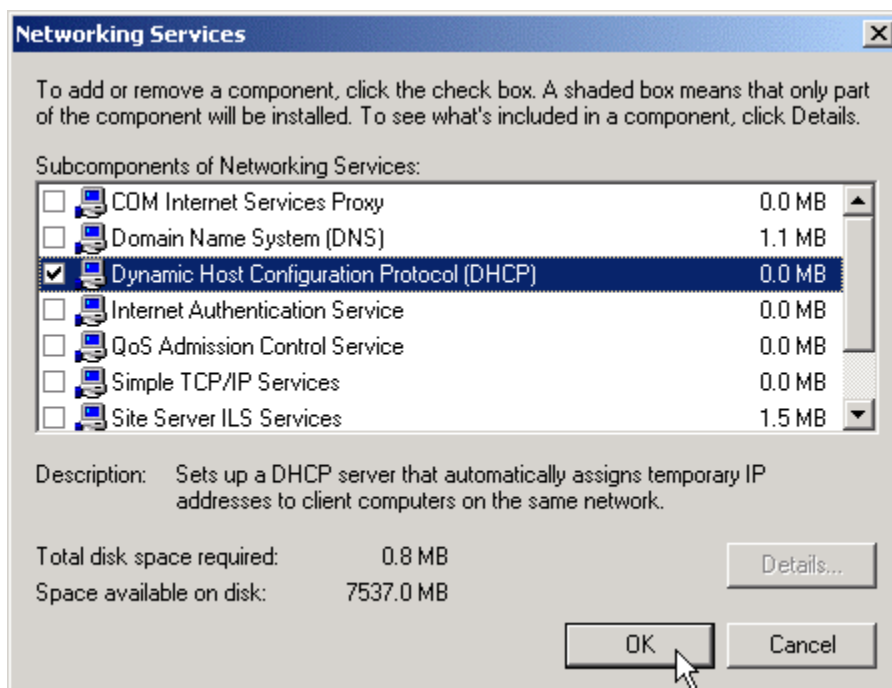
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3. Highlight the **Networking Services** component and click **Details**.



4. Select DHCP Service (Box by service should have checkmark as shown). Click OK.

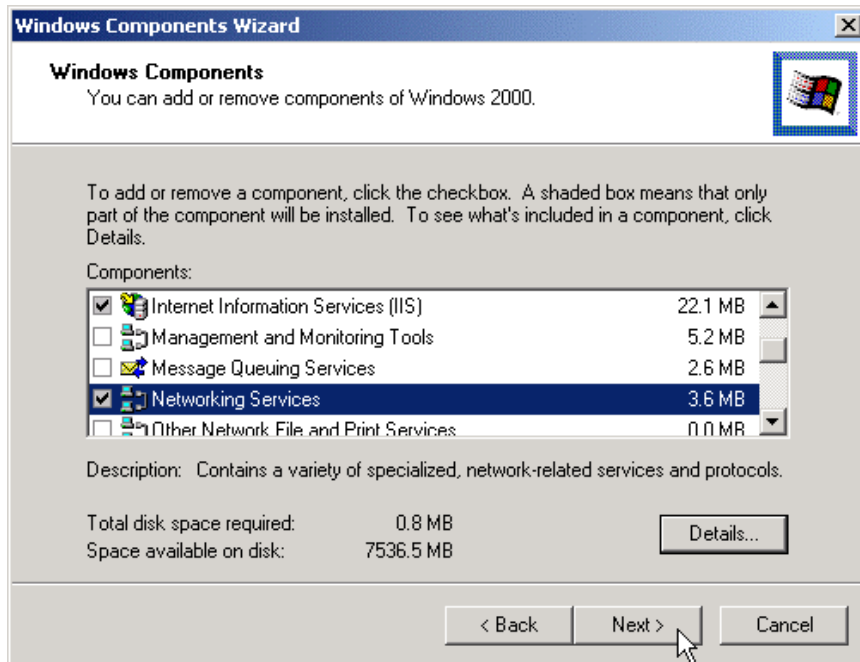


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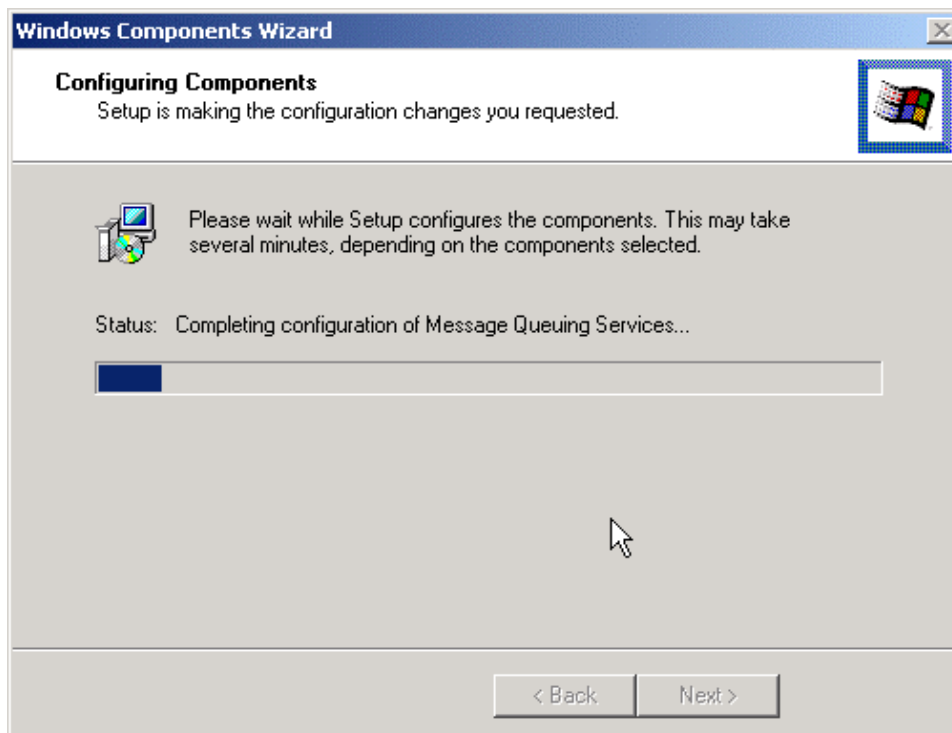
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5. Click **Next**.



6. Wait while DHCP component is installed.



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7. Click **Finish**.



8. Close the Configure Your Server dialog box. (X)

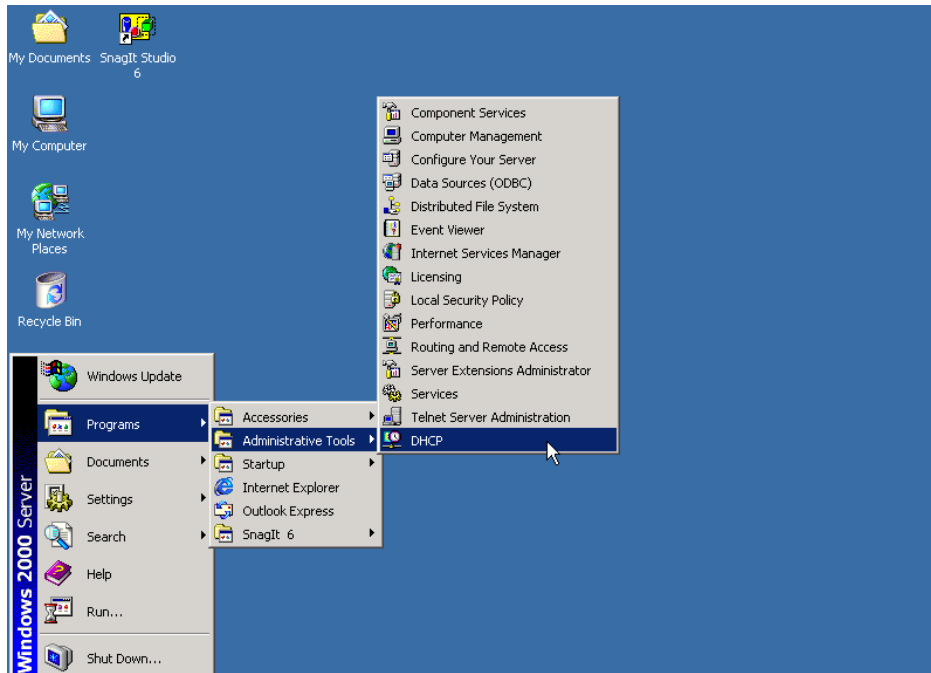


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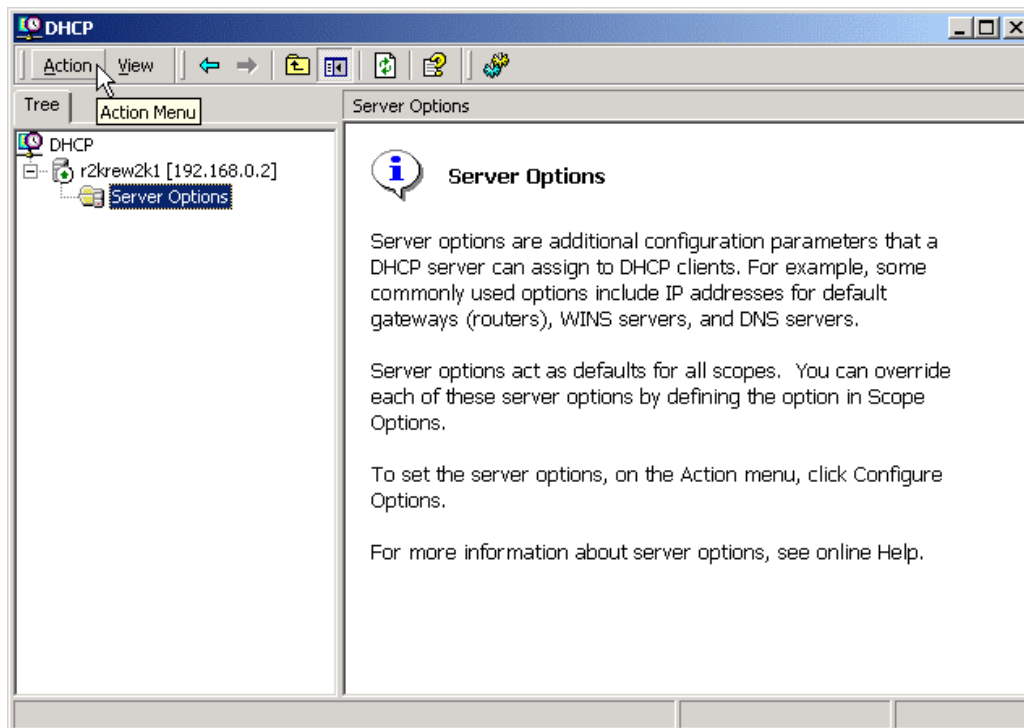
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9. From the desktop, click **Start – Programs – Administrative Tools - DHCP**.



10. Click on the + beside the server to expand the selection and show the Server Options folder. Highlight the **Server Options** folder and click **Action**.

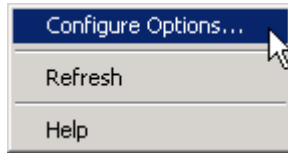


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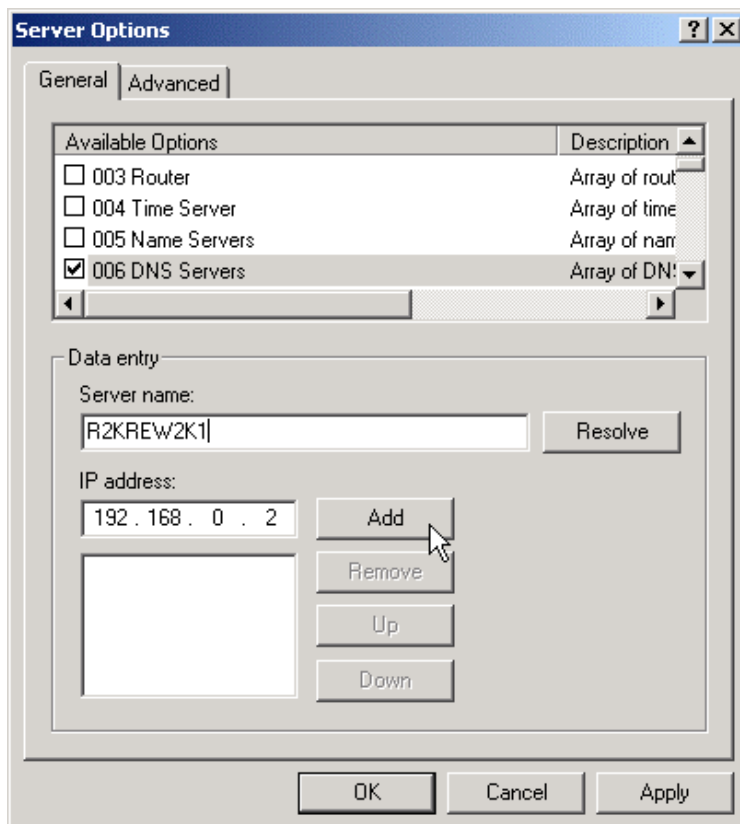
11. Click on **Configure Options**.



12. This will allow us to set the default parameters for all scopes to be created. This is the same as Global Scope Properties in NT4.0. Only options that will be the same from scope to scope should be set. These include but are not limited to:

- ✓ 006 – DNS Servers
- ✓ 015 – Domain Name
- ✓ 044 – WINS / NBNS Server
- ✓ 046 – WINS / NBT Node Type (**0x8**) Default is 0x0

Select 006 DNS Servers with checkmark in box as shown. Enter Server name and IP #. Click Add. Scroll to 015 Domain Name and enter the appropriate information. Continue with the other defaults. (The **003 Router** will be addressed in each scope individually)

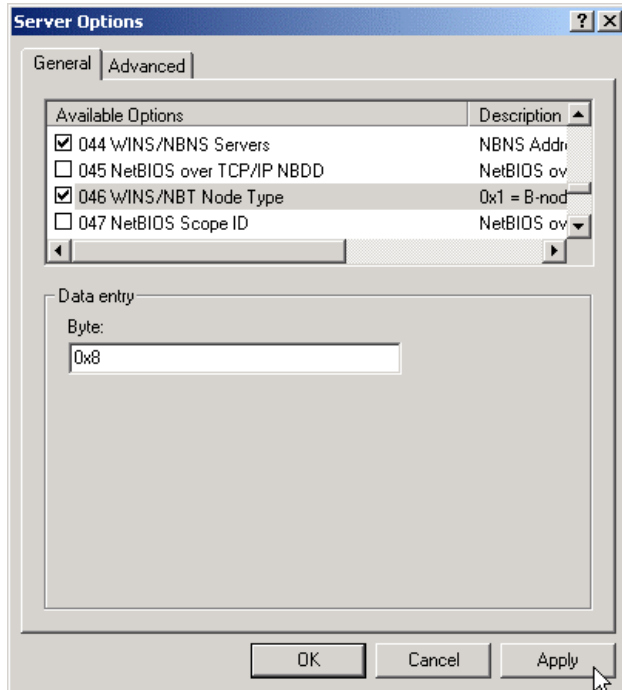


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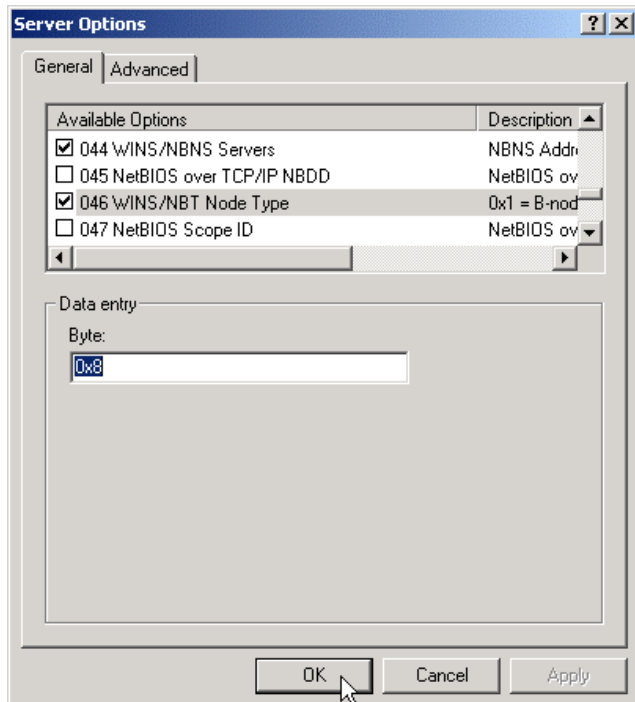
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13. When finished with all defaults click **Apply**. (Make sure on 046 WINS/NBT Node Type that you change the default 0x0 to 0x8).



14. Click **OK**.

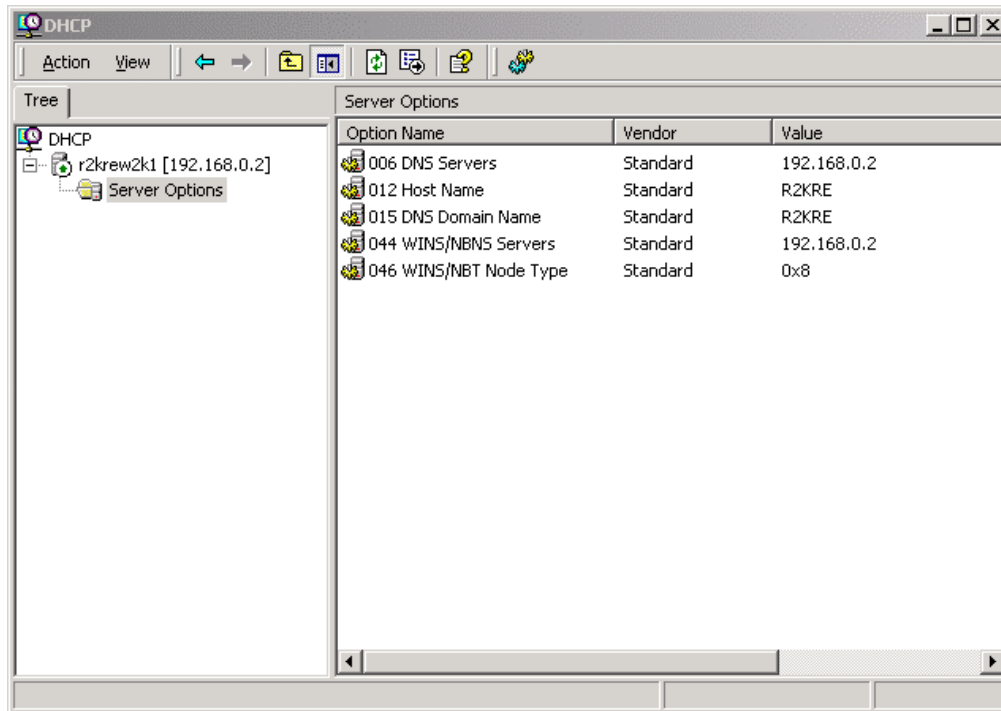


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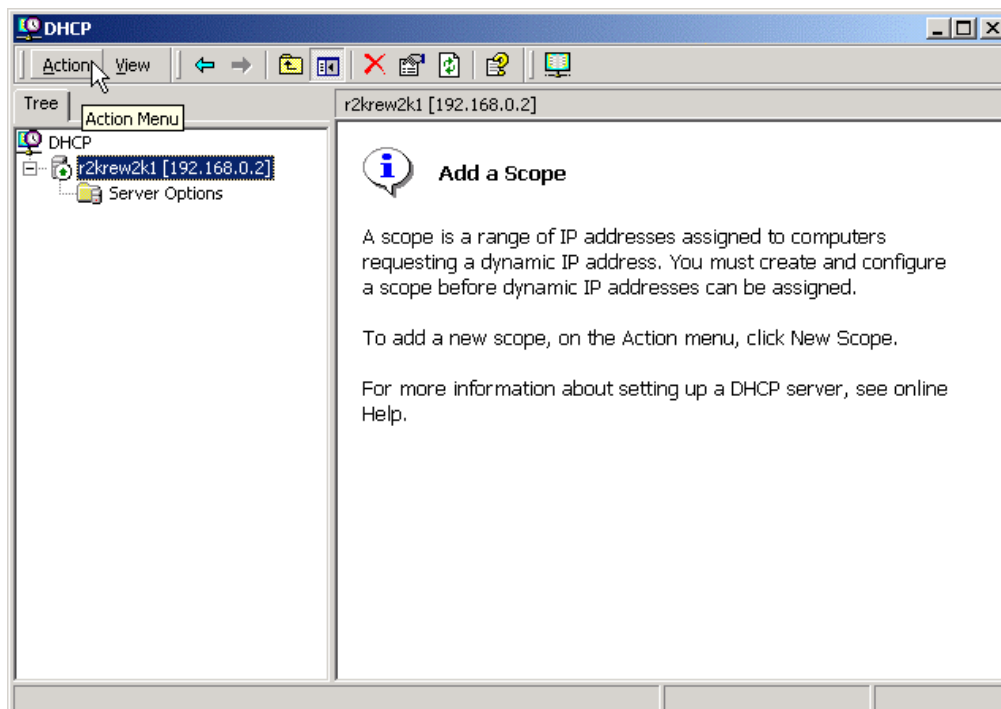
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15. You should see the defaults that were created in the Server Options window.



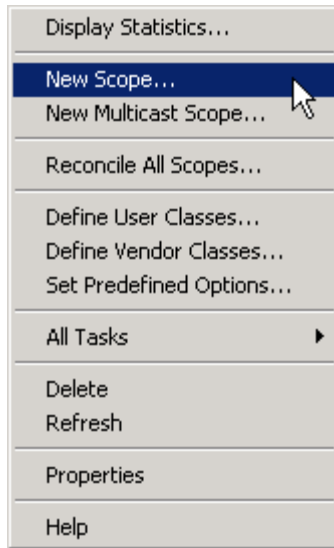
16. Highlight the Server and click **Action**.



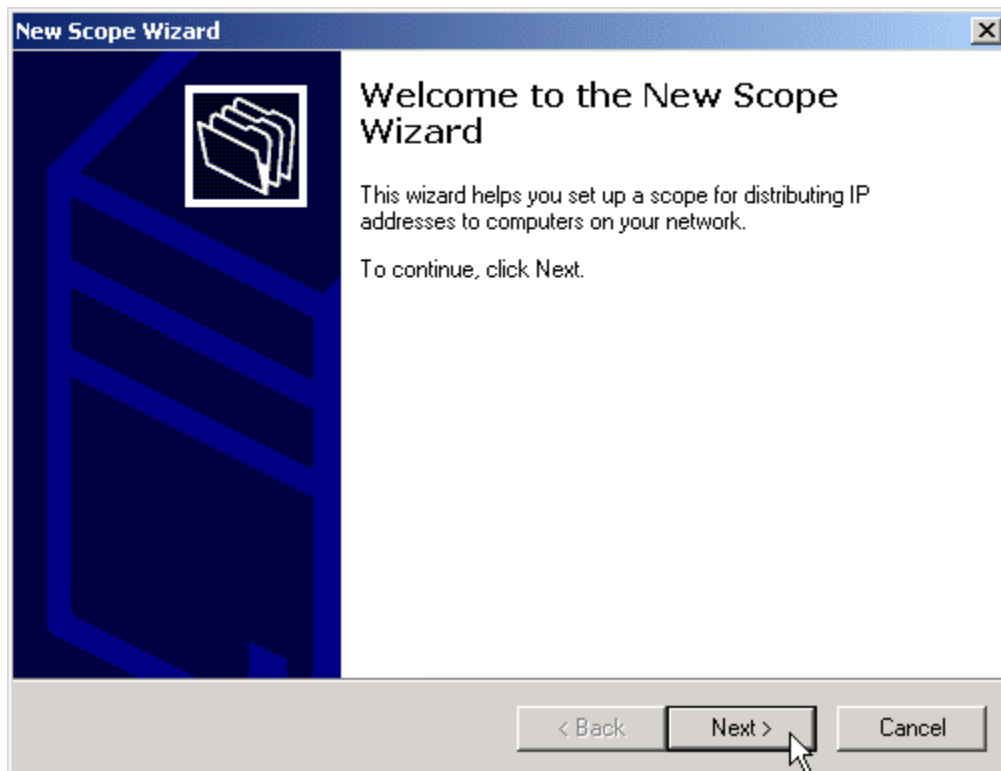
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17. Click **New Scope**.



18. Click **Next**.

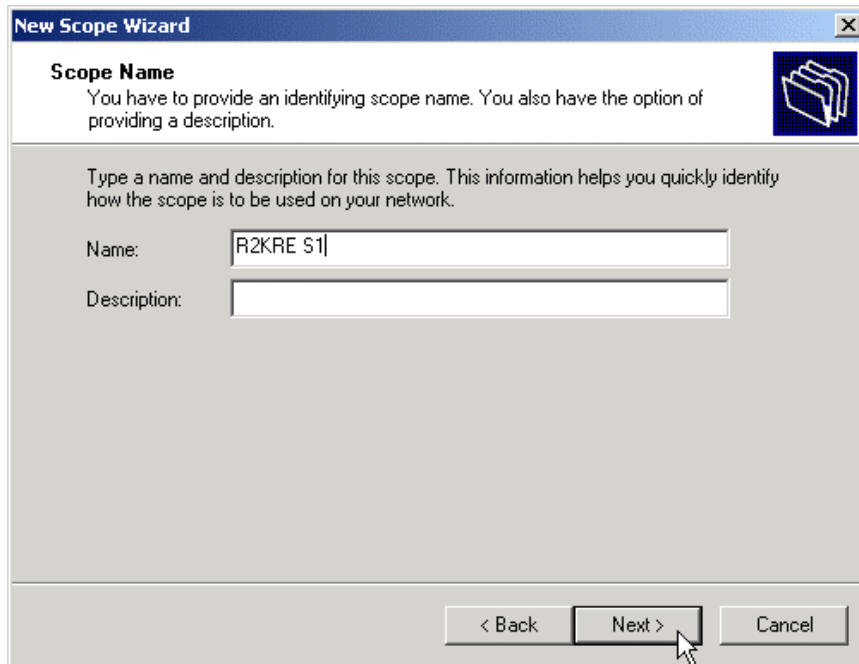


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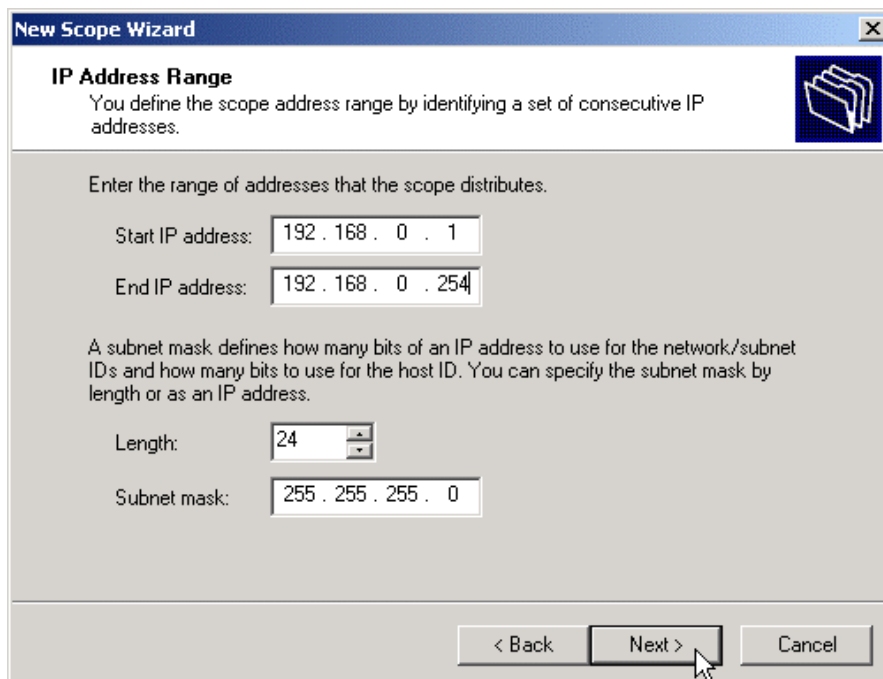
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19. Enter a name for the scope and click **Next**.



The screenshot shows the 'New Scope Wizard' window with the 'Scope Name' tab selected. The window title is 'New Scope Wizard'. Below the title bar, there's a section titled 'Scope Name' with a folder icon. The text says: 'You have to provide an identifying scope name. You also have the option of providing a description.' Below this, it says: 'Type a name and description for this scope. This information helps you quickly identify how the scope is to be used on your network.' There are two input fields: 'Name:' with the text 'R2KRE S1' and 'Description:' which is empty. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. A mouse cursor is pointing at the 'Next >' button.

20. Enter the **Start** and **End IP#** and the **Subnet Mask**. Click **Next**.



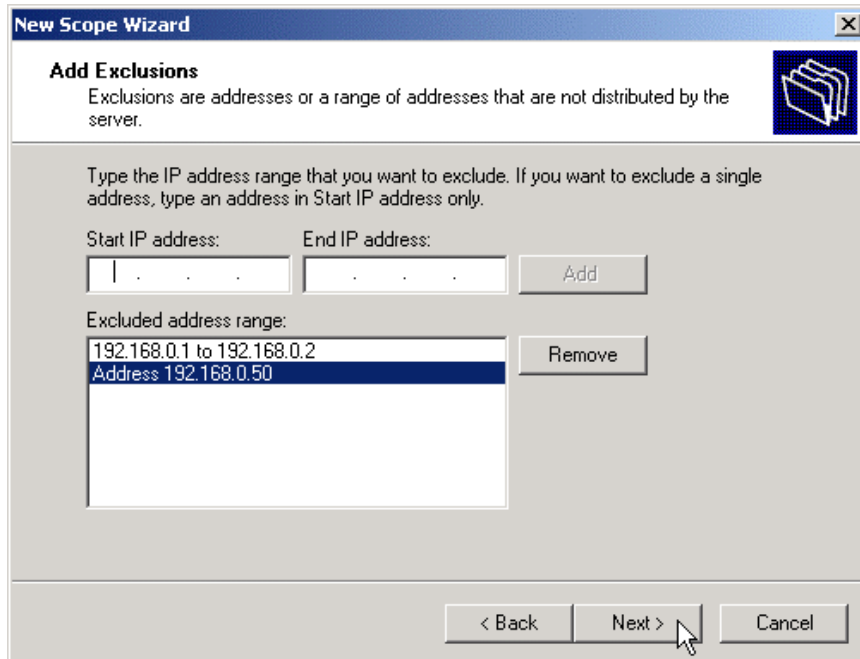
The screenshot shows the 'New Scope Wizard' window with the 'IP Address Range' tab selected. The window title is 'New Scope Wizard'. Below the title bar, there's a section titled 'IP Address Range' with a folder icon. The text says: 'You define the scope address range by identifying a set of consecutive IP addresses.' Below this, it says: 'Enter the range of addresses that the scope distributes.' There are two input fields for IP addresses: 'Start IP address:' with the text '192 . 168 . 0 . 1' and 'End IP address:' with the text '192 . 168 . 0 . 254'. Below these, it says: 'A subnet mask defines how many bits of an IP address to use for the network/subnet IDs and how many bits to use for the host ID. You can specify the subnet mask by length or as an IP address.' There are two input fields for the subnet mask: 'Length:' with a dropdown menu showing '24' and 'Subnet mask:' with the text '255 . 255 . 255 . 0'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. A mouse cursor is pointing at the 'Next >' button.

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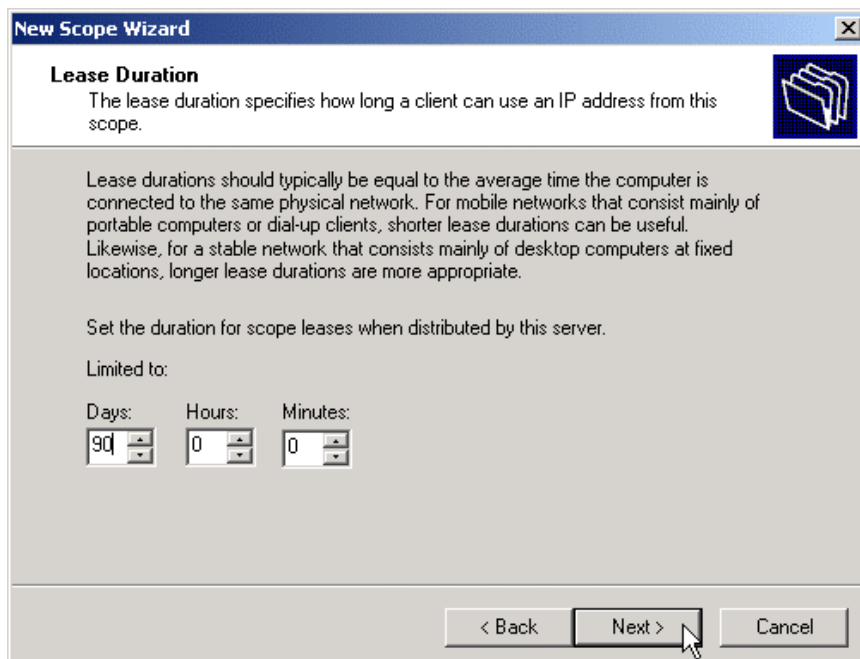
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21. Enter a range or IP to be excluded and click **Add**. Continue adding until all exclusions are entered for this scope then click **Next**.



The 'New Scope Wizard' window is shown at the 'Add Exclusions' step. It includes a title bar, a close button, and a folder icon. The main area contains instructions: 'Exclusions are addresses or a range of addresses that are not distributed by the server.' and 'Type the IP address range that you want to exclude. If you want to exclude a single address, type an address in Start IP address only.' Below this are two input fields: 'Start IP address:' and 'End IP address:', each followed by a text box and an 'Add' button. A list box titled 'Excluded address range:' shows two entries: '192.168.0.1 to 192.168.0.2' and 'Address 192.168.0.50'. A 'Remove' button is to the right of the list. At the bottom are '< Back', 'Next >', and 'Cancel' buttons. A mouse cursor is pointing at the 'Next >' button.

22. Set lease time to **90** days. (Default is 8) Click **Next**.



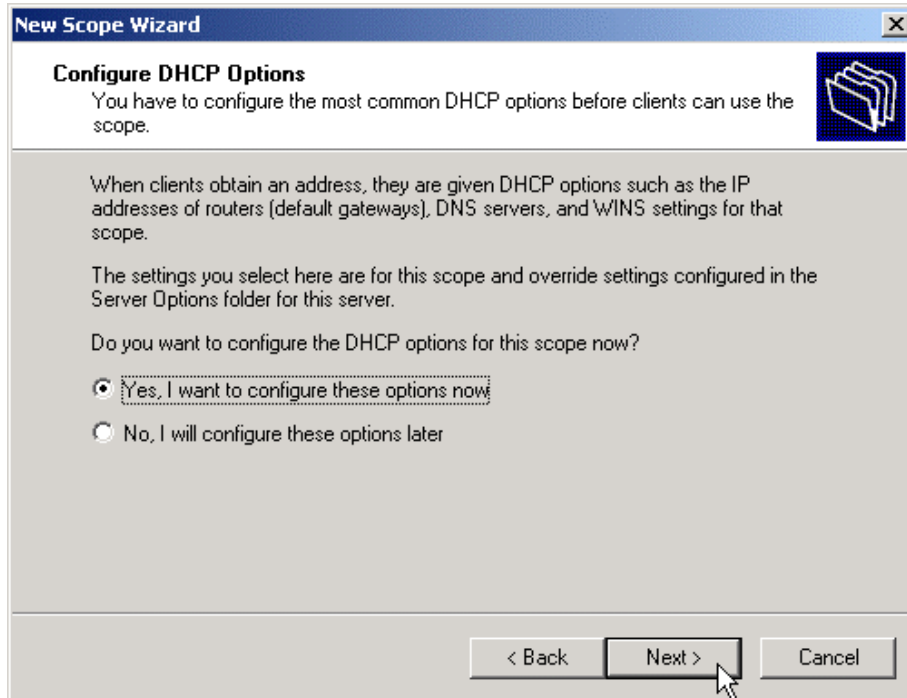
The 'New Scope Wizard' window is shown at the 'Lease Duration' step. It includes a title bar, a close button, and a folder icon. The main area contains instructions: 'The lease duration specifies how long a client can use an IP address from this scope.' and 'Lease durations should typically be equal to the average time the computer is connected to the same physical network. For mobile networks that consist mainly of portable computers or dial-up clients, shorter lease durations can be useful. Likewise, for a stable network that consists mainly of desktop computers at fixed locations, longer lease durations are more appropriate.' Below this is the text 'Set the duration for scope leases when distributed by this server.' and 'Limited to:'. There are three spin boxes: 'Days:' with the value '90', 'Hours:' with the value '0', and 'Minutes:' with the value '0'. At the bottom are '< Back', 'Next >', and 'Cancel' buttons. A mouse cursor is pointing at the 'Next >' button.

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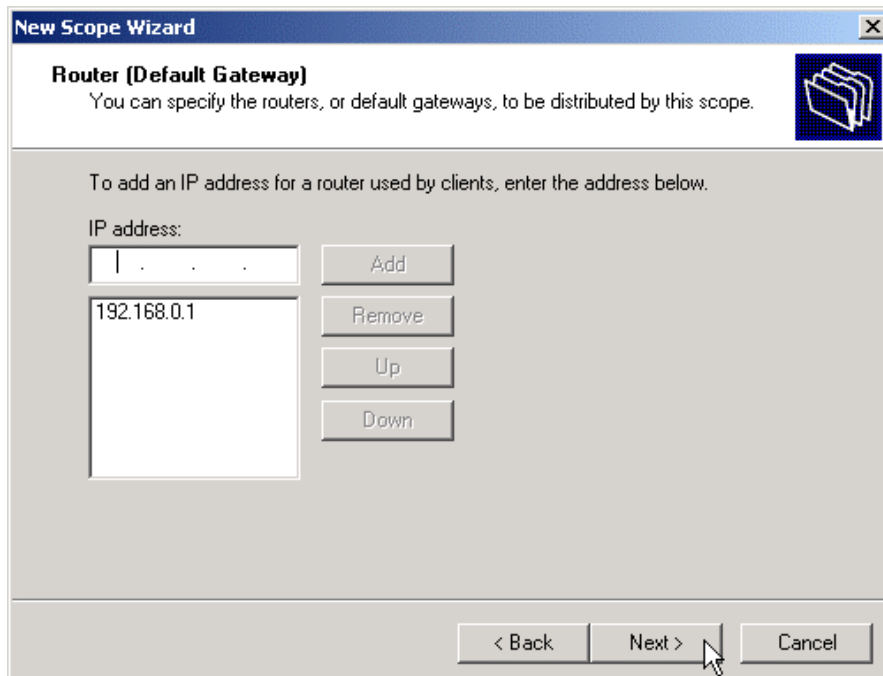
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23. Click **Next**.



24. Enter the Router IP# (default gateway) of this scope. Click **Add**. Click **Next**.

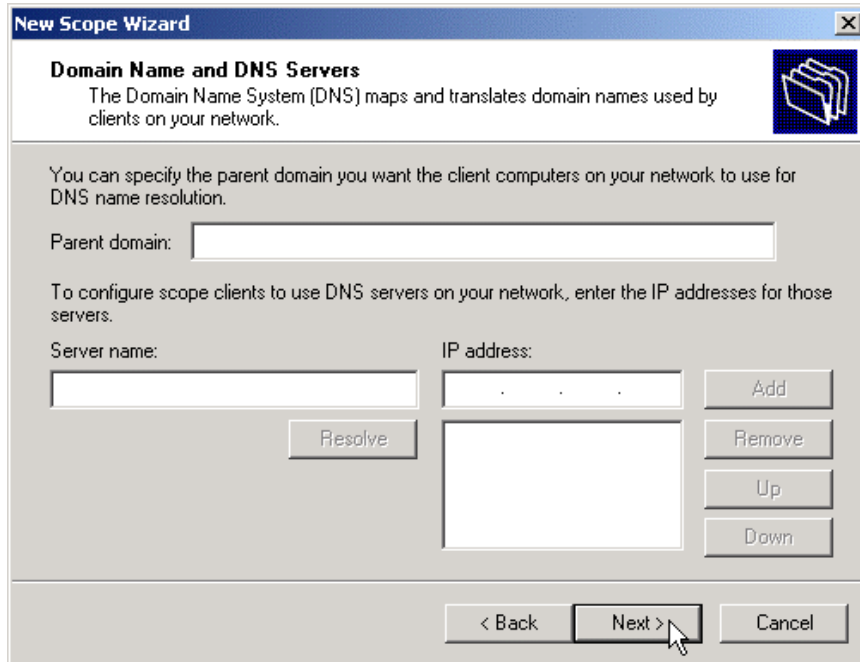


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25. Click **Next**. (DNS information will be supplied from Server Options previously configured)



New Scope Wizard

Domain Name and DNS Servers
The Domain Name System (DNS) maps and translates domain names used by clients on your network.

You can specify the parent domain you want the client computers on your network to use for DNS name resolution.

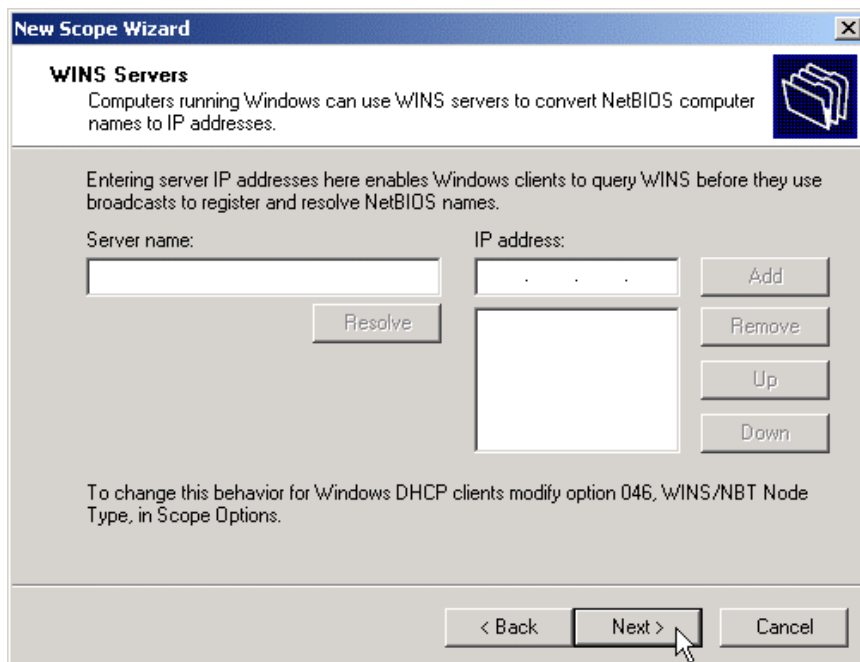
Parent domain:

To configure scope clients to use DNS servers on your network, enter the IP addresses for those servers.

Server name:	IP address:	
<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
<input type="button" value="Resolve"/>	<div></div>	<input type="button" value="Remove"/>
		<input type="button" value="Up"/>
		<input type="button" value="Down"/>

< Back **Next >** Cancel

26. Same for WINS. Click **Next**.



New Scope Wizard

WINS Servers
Computers running Windows can use WINS servers to convert NetBIOS computer names to IP addresses.

Entering server IP addresses here enables Windows clients to query WINS before they use broadcasts to register and resolve NetBIOS names.

Server name:	IP address:	
<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
<input type="button" value="Resolve"/>	<div></div>	<input type="button" value="Remove"/>
		<input type="button" value="Up"/>
		<input type="button" value="Down"/>

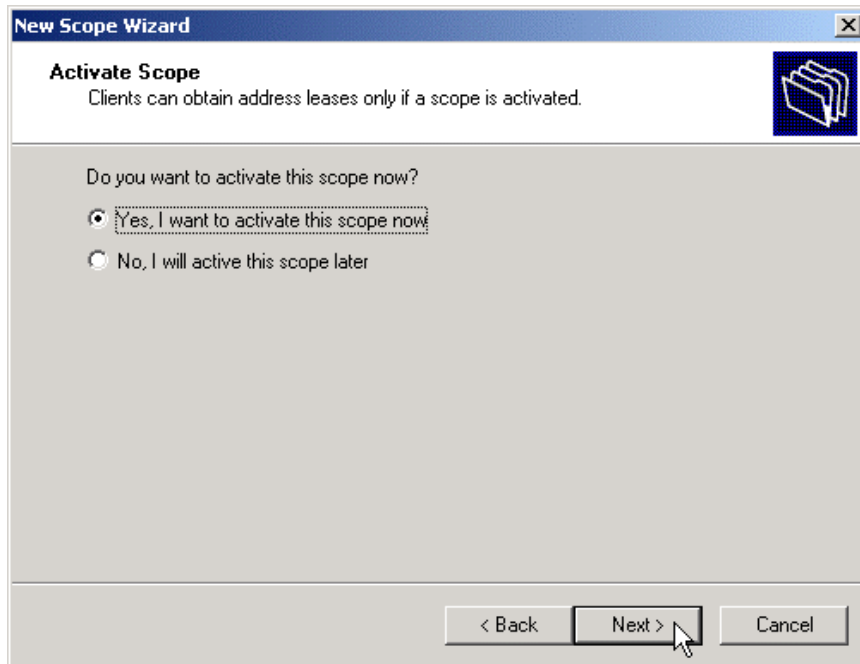
To change this behavior for Windows DHCP clients modify option 046, WINS/NBT Node Type, in Scope Options.

< Back **Next >** Cancel

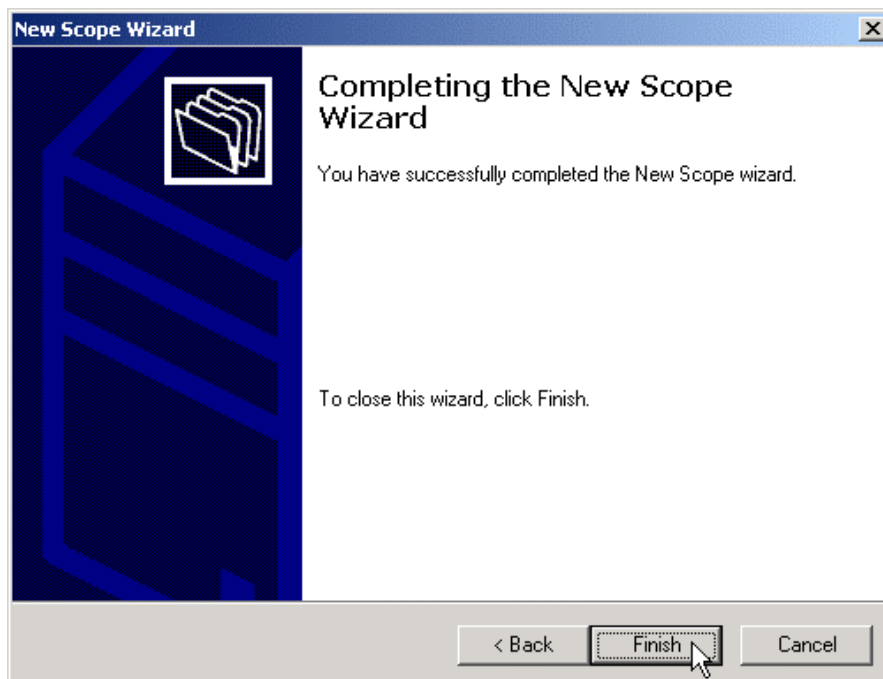
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27. Click **Next**.



28. Click **Finish**.

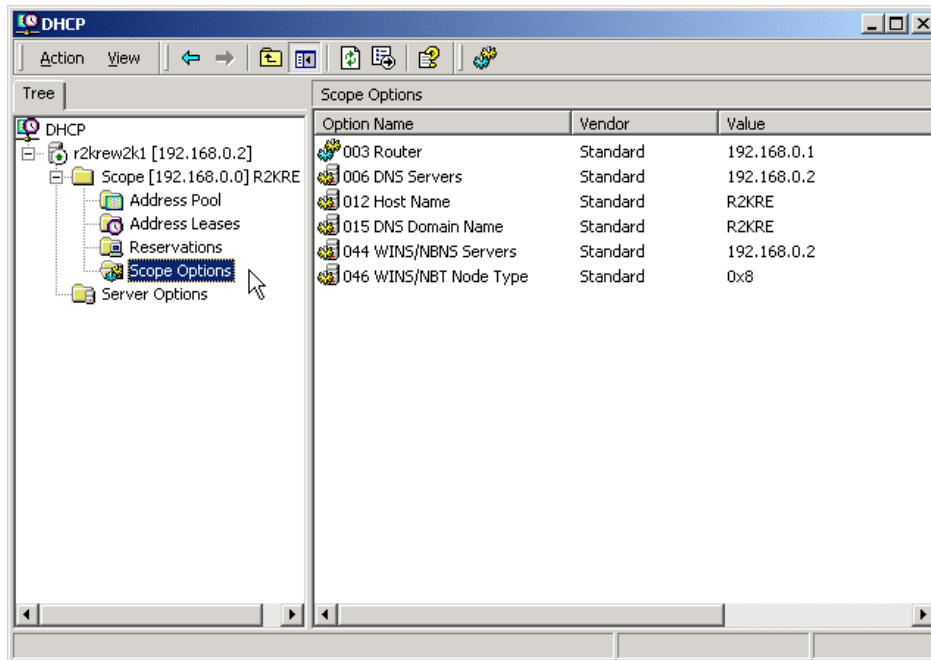


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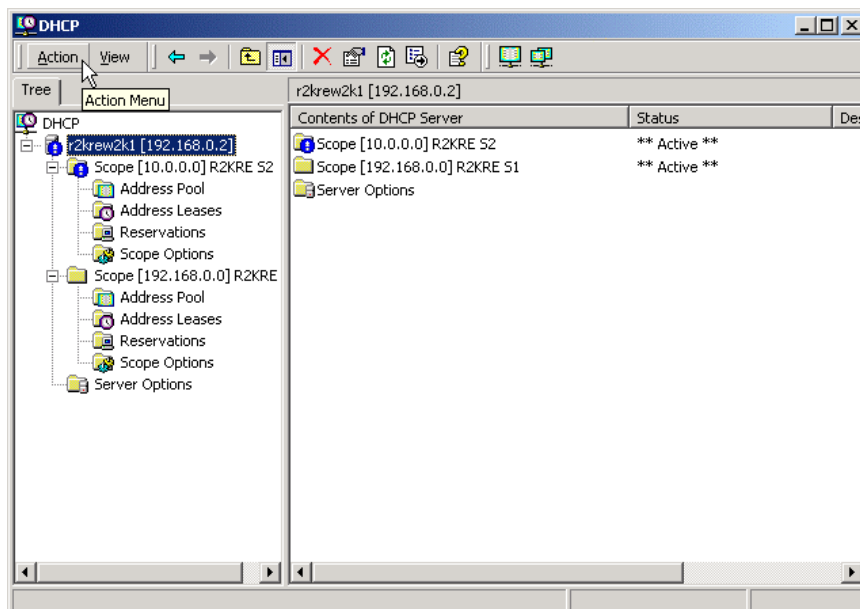
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29. You should see the created scope in the tree. If you expand the Scope and click on **Scope Options**, You should see the Router and all default options listed.



30. Repeat steps 16 – 28 for the next scope. You will most likely create a Public and Private Scope.

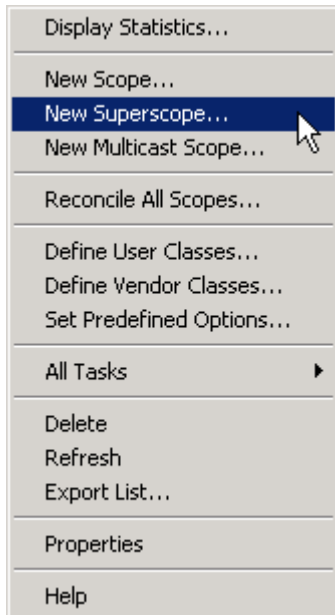
31. After both scopes are created you will need to create a Superscope. Highlight the Server and click **Action**.



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32. Click **New Superscope**.



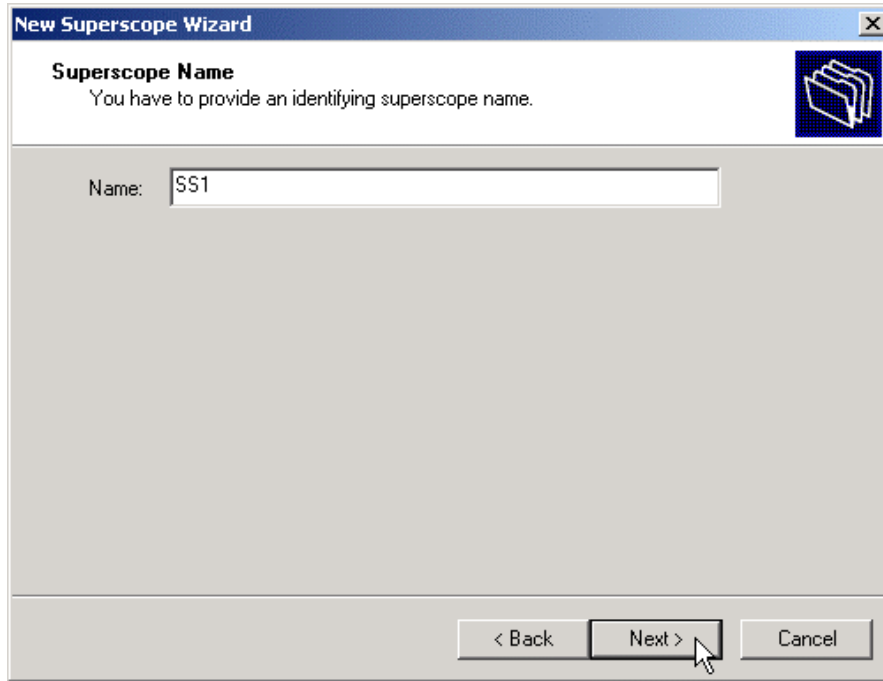
33. Click **Next**.



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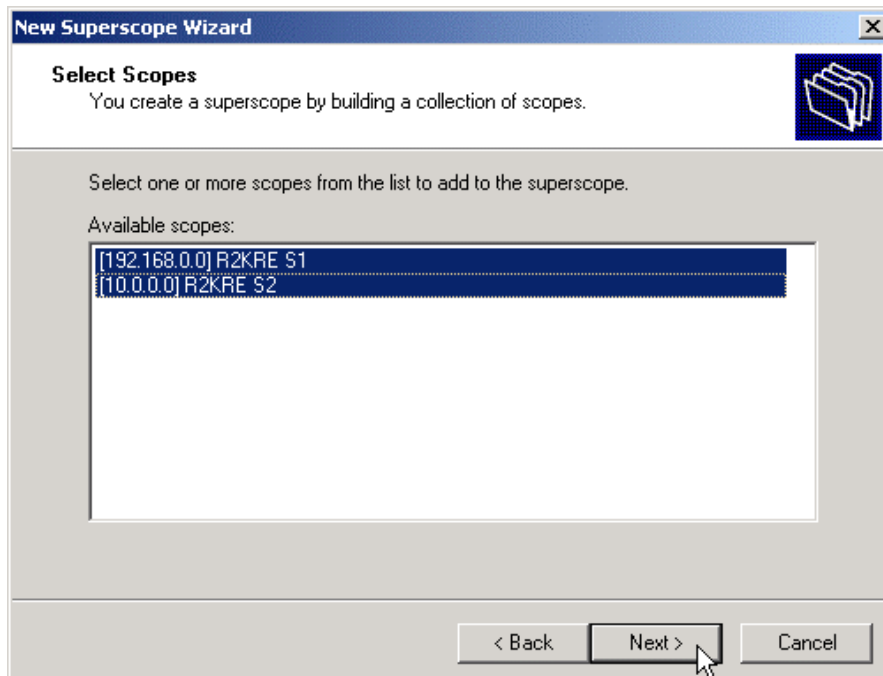
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34. Enter name for Superscope and click **Next**.



The screenshot shows the 'New Superscope Wizard' window at the 'Superscope Name' step. The title bar reads 'New Superscope Wizard'. Below the title bar, the text 'Superscope Name' is followed by the instruction 'You have to provide an identifying superscope name.' To the right of this text is a folder icon. A text box labeled 'Name:' contains the text 'SS1'. At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'. A mouse cursor is pointing at the 'Next >' button.

35. Select both scopes by holding down the Control Key and clicking each scope (these were known as child scopes in NT4.0). When both are highlighted click **Next**.



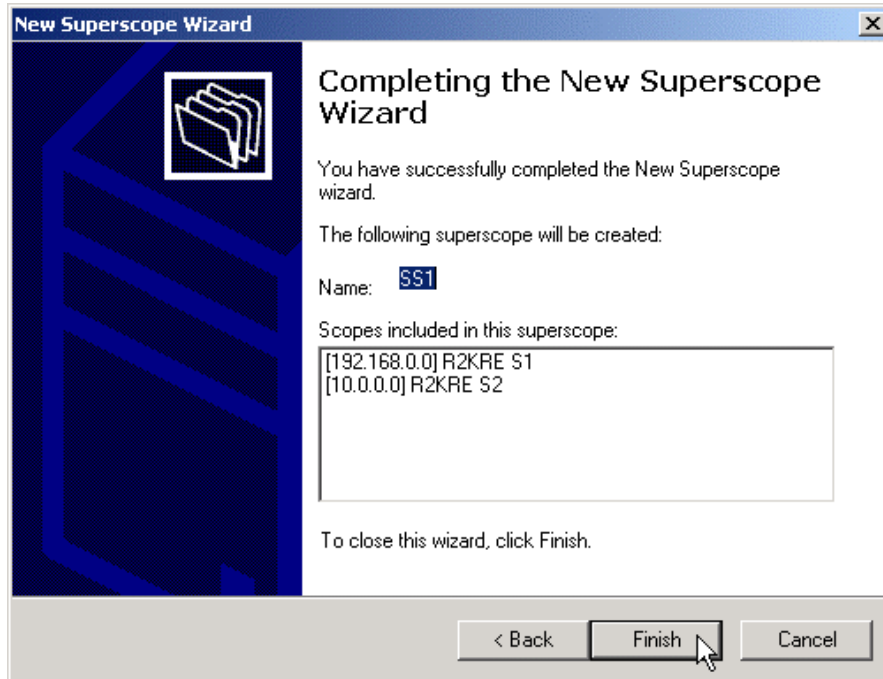
The screenshot shows the 'New Superscope Wizard' window at the 'Select Scopes' step. The title bar reads 'New Superscope Wizard'. Below the title bar, the text 'Select Scopes' is followed by the instruction 'You create a superscope by building a collection of scopes.' To the right of this text is a folder icon. Below this, the text 'Select one or more scopes from the list to add to the superscope.' is followed by 'Available scopes:'. A list box contains two items: '[192.168.0.0] R2KRE S1' and '[10.0.0.0] R2KRE S2'. Both items are highlighted with a blue background. At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'. A mouse cursor is pointing at the 'Next >' button.

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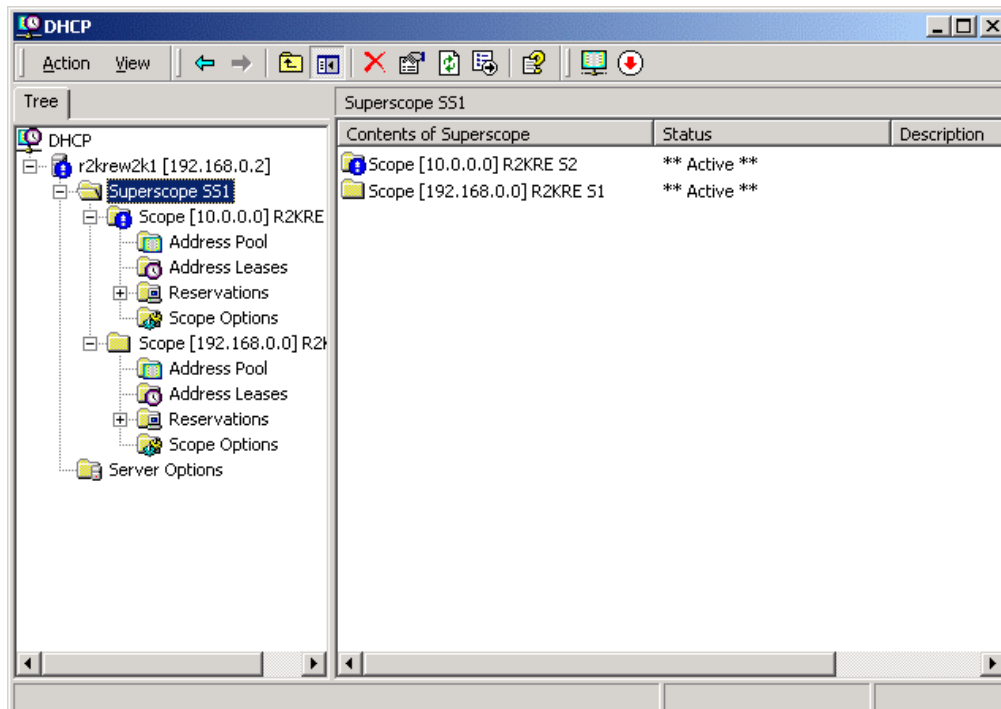
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36. Click **Finish**.



37. You can expand the Superscope in the tree and you should see each child scope.

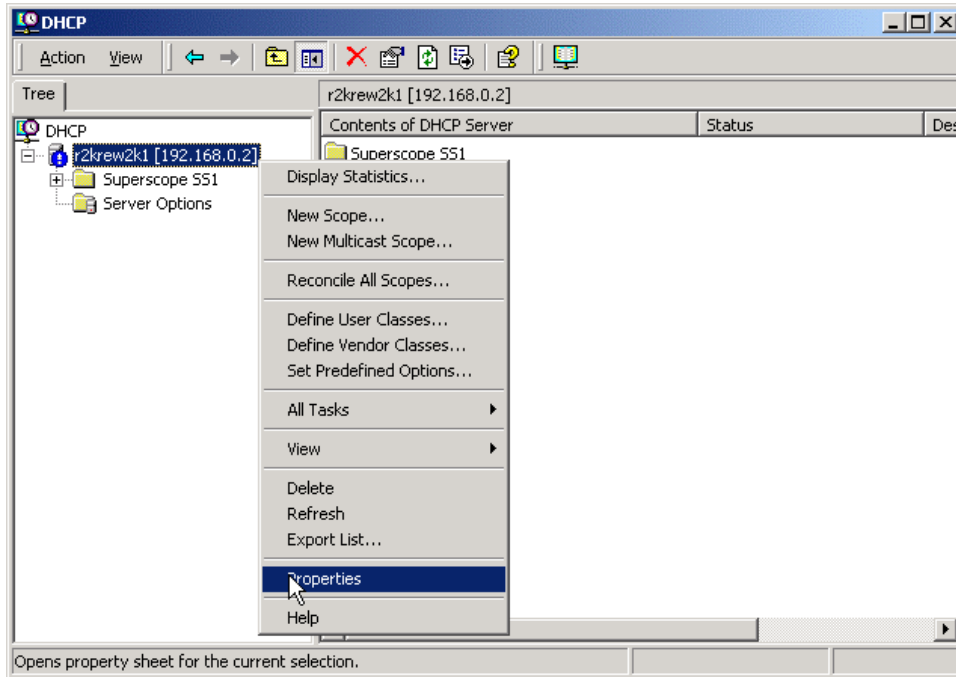


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38. The last option to set is the Conflict Detection Attempts. **Right Click** on the server and select **Properties**. (Server is shown **highlighted** in picture below)



39. Click the **Advanced Tab**. Set the Conflict Detection Attempts to **2** (default is 0). Click **Apply**. Click **OK**.

